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ABSTRACT

This paper examines the influence of the curriculum placement process on students' perception of internal control. Employing cross-sectional data for a national sample of adolescents, the relative importance of the following variables on perceptions of internal control are evaluated: actual curriculum placement, the degree of student choice in where they get placed, ability, socioeconomic status, and race. The data show that more white than black adolescents reports a high degree of internality. However, the relationship between locus of control and race is reported to be greatly diminished when the curriculum placement process is controlled for. It is suggested that adolescent racial differences on locus of control may be due largely to race-based experiential differences rather than to minority status itself. (Author/RLV)

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BLACK-WHITE ADOLESCENT DIFFERENCES IN LOCUS OF CONTROL -- A SECONDARY SCHOOL CURRICULUM-BASED ANALYSIS

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ABSTRACT

Do curriculum placement and the degree of student choice in the process affect perceptions of internal control? And what are the affects of the curriculum placement process on the relationship between race and internality? These questions are evaluated through the use of data collected as a part of the National Longitudinal Study of the High School Class of 1972 (NLS). Our results show that the relationship between locus of control and race is greatly diminished when the curriculum placement process is controlled for. This suggests that adolescent racial differences on locus of control may be due largely to race-based experiential differences rather than to minority status itself.

This paper examines the influence of the curriculum placement process on students' perception of internal control. Employing cross-sectional data for a national sample of adolescents, we evaluate the relative importance of the following variables on perceptions of internal control: actual curriculum placement, the degree of student choice in where they get placed, ability, and two social status characteristics, SES and race.

In a recent study Rosenbaum argues that neither students nor administrators correctly perceive the nature of the curriculum placement system in their own schools. This suggests that the curriculum placement process has not been properly studied and/or is too complex to be understood by participants in it. And even though students and administrators often take it for granted, this system is far from inconsequential. It has been suggested that schools tend to legitimate external stratification by failing to ameliorate background differences. Instead, they tend to perpetuate these differences (Gruber). It could be argued that one way of ameliorating or perpetuating these background differences is through the curriculum placement process. Here we have a system where a student can receive a status commensurate with, or different from the one brought to the school. If that status happens to be based on performance then the system is not likely to simply legitimate background differences. However, if it is ascriptive-based the outcome, by definition, is simple rubber stamping of background status differences.

Rosenbaum also suggests that students are relatively unaware of how they came to be placed in a certain curriculum. Administrators are in general not much more knowledgeable with respect to interlevel mobility. Rosenbaum suggests a "tournament" model of the process as opposed to a "contest" or

"sponsorship" model which is often believed by administrators to exist. A tournament model suggests that at each level students compete for the right to remain at their present level. But under this model no performance, however great, will ever enable contestants to advance upward (Rosenbaum). Thus students in higher curricula should feel more in control of their fates since their performance does actually affect their status. Under a tournament model this is not the case for students in lower tracks.

With respect to locus of control, researchers generally agree that the potential for any behavior to occur in any given situation depends upon (1) the expectancy that the person has that the given behavior will secure the available reinforcement and (2) the accompanying value of that reinforcement (see e.g., Rotter, b and Lefcourt for excellent reviews).

A more formal definition may be stated as follows: internal control refers to the perception of positive and/or negative events as being contingent upon one's own actions and therefore under personal control; external control, on the other hand, refers to the perception of positive and/or negative events as being unrelated to one's own behaviors in certain situations and therefore beyond personal control (Lefcourt).

The Model

In this paper our major substantive concern will be an explanation of black-white adolescent differences in locus of control on the basis of information about the high school experience. Specifically we will attempt to assess the influence of race on locus of control after the effects of curriculum placement, student control over curriculum placement (DPCCC), ability, and SES have been controlled for.

Our substantive model is presented schematically in Figure 1. Past literature has shown both that group differences do exist on locus of control (see e.g., Lefcourt; Rotter; Franklin; Battle and Rotter) and that many of these differences are explicable through examination of various high school related factors such as grade point average, class rank, curriculum placement (see e.g., Conger et al; Gruber).

Following this lead this study will focus on one of these secondary school factors; curriculum placement, as an influence on locus of control Our general hypothesis is that this process will affect internality and that this process will differ by race. Thus after we control for the curriculum placement process we expect black-white adolescent differences to be diminished.

An analysis of the influence of high school factors on locus of control is of great interest for at least two reasons, (1) such a large sgement of the general population shares this experience and (2) because after leaving the high school setting for adult roles a general reduction in internality takes place, even though individuals move into a multiplicty of post-high school careers (Gruber). Apparently there is something about secondary schools that tend to enhance sense of personal control, at least, relative to post-high school environments, even though the positive effects vary across groups.

In the first part of the model, although the direct effect of social status on curriculum placement is tested, its influence is expected to either be less than the effect of ability (Heyns), or to have its effect through status related ability differences. It has been observed that on ability tests like the one used in this study, the high in status (whites and upper SES persons) tend to score higher than blacks and lower SES persons (Coleman).

Previous analysis of this data has also revealed a similar finding (Gruber). It follows, then, that even if ability is used as the basis of curriculum placement the outcome is likely to be de facto racial and SES segregation within our schools.[1] To the extent that a positive relationship exists between measured ability and curriculum placement, as we suspect, whites and high SES persons will tend to occupy high status curricula, while blacks and low SES persons will tend to occupy lower status ones -- with the expected consequent effect on locus of control (Conger et al) and DPCCC. But before we turn our attention to that part of our model we can now summarize the first portion by suggesting the following relationships will hold: (1) Measured ability and social status will be positively related. (2) Curriculum placement will depend upon ability more than social status. (3) The effect of social status on curriculum placement will be largely through status related ability differences.

The literature suggests a positive relationship between curriculum placement and internality (Conger et al). It is believed that high status curriculum placement enhances sense of internal control relative to lower status ones for two reasons: (1) students so placed enjoy a higher position in the stratification system of the school, a position that can be attributed to highly valued high ability; and (2) the high measured ability that is probably responsible for that placement also enables them to remain at that level within the stratification system. In the case of low status curriculum students, it is believed that the situation is just the reverse.

We might look at this another way. The student's level of performance is a measure of that student's ability to master some challenge in the environment. Good performance would suggest to the student a high level of personal control over the environment. Poor performance would suggest the opposite. To the

extent that performance, as measured in achievement or ability tests, affects curriculum placement, we would expect those placed in "higher" curricula to derive a higher level of internality. In sum, then, curriculum placement serves both as a present status symbol and also as a symbol of future prospects.

Another component of the curriculum placement process, the degree of personal choice in the curriculum placement decision (DPCCC) should not be overlooked since it may be just as important as the decision itself in the derived sense of internal control. For example, students may feel an increased sense of internality simply because a particular decision was a good one (e.g., having chosen a vocational rather than a college preparatory curriculum and later realizing that one preferred a given related occupation rather than one requiring a college degree), but also because they made the decision or at least exercised a degree of choice over whether to take a given bit of advice on the matter. Moreover, if the decision on curriculum is largely or entirely due to suggestions from school officials or parents (all high authority figures), the sense of personal control will probably be less than if it were the result of influence from a low authority figure such as a peer. This conceptualization leads us to suggest that students will experience the greatest sense of personal control if they are allowed or encouraged to make this important decision themselves. This can be taken as a vote of confidence in the individual by high authority figures since legitimately the authorities could have elected to make this decision for the individual. On the other hand, sense of internality is expected to be less, the more that the curriculum choice decision is one over which the student generally has little control.

Another point should also be made. Although our concern is not really with the direct effect of ability on locus of control, the two have been

found to be positively related in one case (Gruber) but in general the results have been mixed (Rotter; Crandall et al; see especially Conger et al for an excellent review of this issue). Thus we are unclear as to how the two will be related in this study.

In the second part of the analysis we will examine the following hypotheses:

(1) The effects of race on locus of control will be diminished once the curriculum placement process is controlled for.

(2) Curriculum placement and internality will be positively related.

(3) Locus of control will be positively related to DPCCC.

(4) Black adolescents are lower on internality, relative to white adolescents, because (a) they occupy lower positions in the school's stratification system (lower curricula), and (b) they tend to exercise less control over where they get placed.

Methods

Sample

The data for this study are a part of the National Longitudinal Study of the High School Class of 1972 (NLS). The NLS sample was drawn on the basis of a deeply stratified two-stage probability sample with schools as first-stage sampling units and students as second-stage units.[2]

From each selected school a random sample of 18 seniors (or its equivalent) was taken from rosters of all such students provided by the school. Our sample consists of 18,881 students, 2,902 of which are black and 15,979 of which are white.

Variable measurement

High School Curriculum: Student curriculum assignments were obtained from student records by school officials. When such information was missing from our data set, it was replaced by students' own reports of whether they were in an academic (or college preparatory), general, or technical-vocational curriculum. For the purposes of analysis this order will be used to represent the status of the curriculum (see e.g., Gruber). Degree of Personal Control over the Curriculum Choice (DPCCC): On the basis of the items listed below, respondents were asked to indicate which had been (1) not important, (2) somewhat important, or (3) very important as an influence on their high school curriculum choice. Each of the influences reported as very important was given a score of 1 to 5 to indicate the extent to which proferred advice concerning curriculum choice could not be discounted.

Two of these influences referred to school-related determinants -- (a) I had no choice; it was the only program available at my school, and (b) I had no choice; I was assigned to it -- the other eight influences were parents, relatives other than parents, guidance counselor, teacher other than guidance counselor, principal or assistant principal, clergyman, adult not mentioned above, friends their own age, self.

Responses were ordered according to the following scoring system: A one (1) was given when school-related factors (guidance counselor, teacher other than counselor, principal, and the two items referring to not having any choice and not having any other program) were picked; a two (2) was given when parents were picked, a three (3) when other adults (relatives other than parents, clergyman, adult not mentioned) were picked; a four (4) for peer responses; and finally a five (5) when the student picked self. An average score was obtained for each student.

In those two categories (school-related factors and other adults) based on more than a single item, the respondent was treated as having missing data for the category if two or more items were not answered (e.g., if there was no reference for counselors and for other teachers in the "school-related" factors category). For the overall DPCCC scale, if data were missing for three or more components, the entire scale was treated as missing. Ability: Six subtests (vocabulary, picture number, reading, letter groups, mathematics, and mosaic comparisons) comprised the aptitude battery.

On the basis of a factor analysis of the six subtests a linear combination of four of them (reading, letter groups, vocabulary and mathematics) with unit weights, was used as a general measure of academic ability. The high ability group corresponded roughly to the upper quartile, the low ability group to the lower quartile, and the middle ability group to the middle quartiles.

Socioeconomic Status (SES): The SES index included in the NLS data set constructed by the staff at Research Triangle Institute (RTI) was derived from an equally weighted linear composite of father's education, mother's education, father's occupation, family income and household items.

Locus of Control, the I-E scale (Internality): The four items below were included as part of the NLS survey. Scores were determined on the basis of responses on a five-point likert-scale ranging from "strongly agree" to "strongly disagree": (1) Good Luck is more important than hard work for success. (2) Every time I try to get ahead, something or somebody stops me. (3) Planning only makes a person unhappy since plans hardly work out anyway. (4) People who accept their condition in life are happier than those who try to change things.

We will use the full range of values derived from assigning one (1) point for each statement the respondent answered strongly agree, two (2) points for an agree response, etc., in the regression analysis. However, where cross-tabular analysis is used, we will use the scale described below.

Locus of Control (RTI Locus of Control Scale): For this variable we used the scale constructed by the staff at the Research Triangle Institute (RTI). The scale was formed by taking an average of the responses to the above four items scored in the following manner: A response of "agree strongly" received 1 point, an "agree" response received 2 points, "no opinion" responses received 3 points, "disagree" received 4 points, and finally, a response of "disagree strongly" received 5 points.

These scores were recoded as follows: 1 through 2.4 (low internality); 2.5 through 3.4 (equal internality and externality); and finally, 3.5 through 5 (high internality).

Analysis

Path analysis was our basic analytic technique. The coefficients to be presented may be interpreted as net, standardized effects. The techniques and assumptions of path analysis are available in our sources (Loether and McTavish; Duncan) so they need not be restated here.

Results

Consistent with past research our data again show that a higher proportion of white adolescents, than black adolescents, report a high degree of internality. In Table 1 it can be seen that roughly 60% (59.5%) of blacks as compared to 75% (78.4%) of whites were measured as having a high degree of internality. Now that we see that race is moderately related to internality (gamma = .417) we will now consider more closely the nature of that relationship.

Since our model clearly does not contain all relevant variables that might effect locus of control, our assessment will be in terms of the relative magnitude of the zero-order relationship of race and locus of control (see Table 2) and that same relationship after the curriculum placement process has been controlled for.

The standardized parameters for the model presented in Figure 1 are reported in Table 3. The coefficients presented in this table represent direct effects but they will also be used to estimate indirect effects.[3]

It should be noticed that in the first part of our model race and SES exhibit roughly comparable influence on measured ability (.249 vs. .281), with SES being slightly the stronger of the two. This is important because the effect of ability is over twice as strong as the effect of either race of SES on curriculum placement (.432 vs. -.119 and .208). This suggests that one's curriculum placement results largely from ability differences which, in turn, results from social status. We may test this directly. The indirect effect of race on curriculum placement via ability is small (.108) but twice as large as our minimum value for interpretation (.05). The indirect effect of race on curriculum placement via SES is slightly weaker (.086) than the indirect effect through ability. The final indirect path from race to curriculum placement is by way of SES and ability, and the coefficient is (.037) -- a coefficient too small for meaningful interpretation. Thus our analysis so far shows that curriculum placement <u>is</u> largely the result of ability. But ability is not the only influence on curriculum placement, SES also has a noteworthy effect. On the other hand, the effect of race is both negative and small, whether measured directly or indirectly. This means that white adolescents enjoy an advantage in curriculum placement not as a result of racial status but rather as a result

of its influence on ability differences. However, this is not the case with high SES students. Our results show that these students enjoy a double benefit when it comes to curriculum placement - first as a result of the direct influence of SES and secondly through its indirect effect on ability.

Table 3 shows that in the case of DPCCC race is the stronger of the three influences (.164 vs. .127 for ability and -.014 for SES). These results suggest that SES has no direct effect on DPCCC. Race, on the other hand, does have a direct effect on DPCCC but it is quite small (.164). And as might be expected none of the indirect effects are large enough for meaningful interpretation. This suggests that DPCCC is the result of other variables not included in the model. But of the variables included in the model, only the effects of race and ability were large enough to be meaningfully interpreted. However, while we may conclude that race is the stronger of the two influences, too much should not be made of this since both are quite small and they are not very different in magnitude. Now that we have considered these preliminary matters we now turn to our final, and most important consideration -- the effect of race on locus of control once variables in the model have been controlled for.

Table 2 shows that the zero-order correlation of locus of control and race is (r = .154). Table 3 shows that this correlation drops to (.029) when curriculum placement, ability, DPCCC, and SES have been controlled for. It can also be seen there that ability is the strongest of these influences on locus of control (.286), followed by curriculum placement (.138), DPCCC (.095), and SES (.041). SES was the only control variable whose effect was too small to be meaningfully interpreted. On the basis of these direct effects we may conclude that the adolescent locus of control differences observed in our sample are related to the curriculum placement process. Moreover, we may conclude

that ability is the most important direct effect on locus of control. It is also noteworthy that curriculum placement influences locus of control much in the way we had expected. But surprisingly ability had a stronger direct effect on locus of control than did curriculum placement. It is also worthy of note that, although its effect is quite small, DPCCC also influences locus of control and almost as strongly as curriculum placement. We will have more to say on this matter below when we examine the interaction effect of these two on locus of control, but for now we will turn to an examination of the indirect effects of race on locus of control.

The only indirect coefficient large enough to warrant interpretation was the path from race to ability to locus of control (.071), a rather weak path but a rather surprising one since we had expected the indirect effect of race on locus of control to come through curriculum placement.[4]

To summarize, the analysis so far shows that race, for the most part, has only an indirect effect on internality. Most of the effects of race on internality are mediated by ability. Throughout our model, race consistently has an effect, but ultimately the strongest influences on internality are ability and curriculum placement. The next strongest influence on a student's sense of internality appears to be DPCCC. In general then, this model suggests that black and white adolescents differ on internality for several reasons. Not least among these is the fact that whites tend to have higher measured ability which then translates into higher internality via higher curriculum placement.

Our final consideration is the interaction effect of curriculum placement and DPCCC on locus of control. The interaction term for these two variables was used as a variable in a multiple regression with the other independent

variables. Table 3 presents the beta coefficient for this interaction term (-.086). Since this coefficient is substantively significant, that is, greater than (.05), we will elaborate the relationship among its component parts.

Table 4 shows that the linear relationship between internality and DPCCC is strongest for students in vocational curricula (gamma = .216), and general curricula (gamma = .212) and weakest in academic curricula (gamma = .124). This may be interpreted to mean that for persons having low DPCCC, academic curricula are most favorable to internality. In general, then, we may say that the effects of curriculum placement on the relationship between DPCCC and internality is roughly the same for both lower status curricula but not for academic ones. Our results suggest further that any negative effects of low DPCCC on internality will be offset by being placed in an academic curriculum. This is reflected by the smaller gamma coefficient (gamma = .124). In vocational and general curricula DPCCC counts for a bit more (gamma - .216 for vocational curricula; gamma - .212 for general curricula). This result supports our contention that low DPCCC would be more costly of internality in lower status curricula. However, in neither case is the relationship very strong.

Summary and Conclusions

In this study, we show that the zero-order correlation between race and internality, though small, was still much larger than that same correlation after the curriculum placement process was taken into account.

At the outset of this study we believed that both curriculum placement and DPCCC would be positively related to internality, but we also believed that the two might interact. And our results did show that high status curriculum

placement offsets the negative effects of experiencing less control over the curriculum placement process. This finding is interesting since it is a very clear example in support of the contention by Rotter that the experience of mastery leads to an increased sense of internality.

This study again has shown that there is something about the high school environment that helps to account for differences in internality among adolescents. One factor is that the high school setting tends to stratify students (place them into curricula) not only on the basis of performance (ability) but also on the basis of background status (race and SES). But consistent with our American ethos of achievement and merit, we found that performance is somewhat more important throughout the entire process -- directly on internality and as part of the strongest indirect path from race to internality.

Implications and recommendations

Past research has shown that the curriculum placement process is not simply another among many inconsequential experiences that adolescents go through. For example, Rosenberg has pointed out that the adolescent, with each passing year, tends to depend less and less on parental evaluation as a source of reflected appraisal and more and more on peers.

But this outcome is not nearly as strong among blacks as among whites (Rosenberg) and according to these results this is probably a stroke of luck for black adolescents, since one of the immediately apparent yardsticks available for peer evaluation (curriculum placement) tends to be so unfavorable. Clearly the case is reversed for whites. Past research (Gruber; Rosenberg) has also shown that blacks are able to reject evaluations of themselves in unfavorable situations, and as a consequence they are able to maintain what is often an inflated sense of self-esteem. However, they are less successful at being able to maintain an equally high sense of internality under these

same circumstances. While whites may correctly see their curriculum placement as being largely based on ability or personal performance, blacks may misperceive their placement as being luck-based since only a relatively few qualify for high status curricula.

Fortunately something can be done about these race-based differences without changing our present system too radically. For one thing, we might use standardized test scores less as the principle basis of school stratification since beforehand we know how that will affect internal segregation.

On the basis of our results we also recommend that more research be conducted on the determinants of a student's sense of personal control over their curriculum placement (DPCCC). For example, do black and white adolescents differ on DPCCC because blacks tend more often to live in central cities where school districts are large and more heterogeneous with respect to ability (Conant)? Under such circumstances a tournament model is more likely to develop as a result of the need for efficient allocation of such a diverse population of students. Thus whites who tend more often to live in suburbs than in central cities may experience more DPCCC than blacks simply because the school districts there are more homogeneous with respect to ability.

Whatever the future answers to these questions happen to be, we have some possible evidence that DPCCC and internality are positively related. We also know that for those students in low status curricula, the perception of control over their placement there is more strongly related to internality than in any other curriculum. Thus it seems that one way of enhancing a student's sense of fate control is to allow students to take a more active part in the selection of their own curriculum placement -- without direct regard to ability --

then later, on the basis of performance, students may then be reallocated to other more appropriate curricula. Such a contest model would be more consistent with our American ethos of achievement through competition.

NOTES

[1]Elizabeth G. Cohen has suggested that background characteristics (such as race and social class, among others), often referred to as "diffuse status", have the "capacity to affect the prestige and power order of interpersonal relations" (86). The notion of diffuse status suggests that a general expectation of superior competence will be associated with high status. Yet it is not necessary, according to this theory, that these expectations be held consciously. The theory does suggest, however, that those conceptions associated with diffuse status do become a part of what Durkheim called collective representations. Thus in an institutional setting diffuse status could have a determinant effect on the type of experience an individual will have (see Tyree and Hodge; Glaser and Straus for similar concepts). The point is that even though curriculum placement is formally based on ability, if ability and status display a high degree of covariation, the outcome may appear to have been the result of diffuse status.

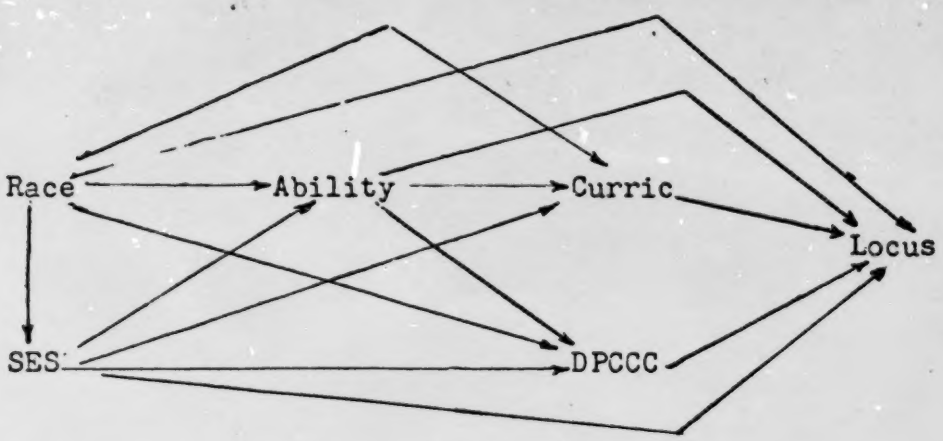
[2]This information and the scales on ability and SES were taken from the Final Report: The Base Year Survey of the National Longitudinal Study of the High School Class of 1972, pp. 23-44 and 53-72. These scales were constructed by the staff of Research Triangle Institute (RTI).

[3]This is done by multiplying each coefficient located on paths between various exogenous and endogenous variables. For example, the indirect effect of race on locus of control can be traced through ability (.249 x .286 = .071) or through SES (.305 x .041 = .013).

NOTES (Cont'd)

[4]In this regard a study by Rotter is of particular interest. Rotter reported that in the case of black children of low SES backgrounds, intelligence and internality were inversely related. His findings, though based on too small a sample to be conclusive, did suggest that the perception of limited material opportunities and of powerful external forces may have the affect of lowering internal attitudes (Rotter, b). That is, these self-attitudes are probably responsive to reality and may be subject to the different experiences of different segments of society.

Fig. 1 A Structural Model of Adolescent Locus of Control*



* The following variable abbreviations are used throughout:

SES is Socioeconomic Status

Curric is Curriculum Placement

DPCCC is Degree of Personal Control over Curriculum Choice

Locus is Locus of Control

Table 1 A Crosstabulation of Internality by Race

Internality	Race	
	Black	White
Low	10.6%	3.4%
Moderate	29.9%	18.2%
High	59.5%	78.4%
	1,603	10,963
	100.0%	100.0%

gamma = 0.417

Table 2 Zero-order Correlation Coefficients, Means, and Standard Deviations

	Locus	Curric	Ability	Race	SES	DPCCC	DPCCC-Curric
Locus	1.000						
Curric	0.223	1.000					
Ability	0.35[illegible]	0.466	1.000				
Race	0.154	0.089	0.334	1.000			
SES	0.180	0.326	0.357	0.305	1.000		
DPCCC	0.104	0.009	0.177	0.202	0.082	1.000	
DPCCC–Curric	0.224	0.773	0.450	0.174	0.288	0.604	1.000
Mean	15.132	2.220	2.041	0.879	2.004	2.416	5.369
SD	2.843	0.807	0.732	0.326	0.715	0.694	2.559

Table 3 Standardized Parameters and Coefficients of Determination for Figure One

	Race	SES	Ability	Curric	DPCCC	DPCCC-Curric	R^2
SES	.305*						.093
Ability	.249*	.281*					.183
Curric	-.119*	.208*	.432*				.258
DPCCC	.164*	-.014	.127*				.054
Locus	.029	.041	.286*	.138*	.095*	-.086*	.135

* Coefficient is substantively significant (greater than .05) See note to Figure One for variable abbreviations. DPCCC-Curric represents the interaction effect of DPCCC and Curriculum placement.

Table 4 A Crosstabulation of Internality by DPCCC controlling for Curriculum Placement

Internality	Curriculum Placement: Vocational DPCCC			General DPCCC			Academic DPCCC		
	Low	Moderate	High	Low	Moderate	High	Low	Moderate	High
Low	12.3%	7.1%	4.4%	8.8%	8.7%	4.6%	3.0%	2.2%	1.4%
Moderate	34.5%	26.1%	23.3%	31.0%	27.8%	21.7%	18.9%	12.2%	12.3%
High	53.2%	66.7%	72.2%	60.3%	63.6%	73.7%	78.0%	85.6%	86.4%
	374	1025	1649	536	1329	1936	628	2018	3094
	100.0%	99.9%	99.9%	100.1%	100.0%	100.0%	99.9%	100.0%	100.1%
	gamma = 0.216			gamma = 0.212			gamma = 0.124		

REFERENCES

Battle, E. and J. B. Rotter. 1963. "Children's feelings of Personal Control as related to Social Class and Ethnic group". Journal of Personality. 31: 482-490.

Cohen, E. 1973. "Modifying the Effects of Social Structure". In Glen H. Elder (ed.), Linking Social Structure and Personality. Beverly Hills: Sage.

Coleman, J. S., E. Q. Campbell, C. J. Hobson, J. McPartland, A. M. Mood, F. D. Weinfeld, and R. L. York. 1966. Equality of Educational Opportunity. Washington, D.C.

Conant, J. B. 1961. Slums and Suburbs. New York: McGraw-Hill.

Conger, A. J., S. S. Peng and G. H. Dunteman. 1976. National Longitudinal Study of the High School Class of 1972 Group Profiles on Self-Esteem, Locus of Control, and Life Goals, A Report Prepared for National Center for Education Statistics under Contract OEC-0-73-6666. January.

Crandall, V. C., W. Katkovsky and V. J. Crandall. 1965. "Children's beliefs in their own control of reinforcement in intellectual-academic achievement situations". Child Development. 36: 91-109.

Davis, L. and E. J. Phares. 1969. "Parental Antecedents of Internal-external control of reinforcement". Psychological Reports. 24 (2): 427-436.

Franklin, R. D. 1963. Youth's Expectations about Internal vs. External control of reinforcement related to N variables. Unpublished Doctoral Dissertation. Purdue University. In Conger, A. J., S. S. Peng and G. H. Dunteman. 1976. National Longitudinal Study of the High School Class of 1972 Group Profiles on Self-Esteem, Locus of Control, and Life Goals, A Report Prepared for National Center for Education Statistics under Contract OEC-0-73-6666. January.

Glaser, B. G. and A. L. Strauss. 1967. The Discovery of Grounded Theory: Strategies for Qualitative Research. Chicago: Aldine Publications.

Gruber, J. E. 1976. Factors Influencing the Self-esteem and Locus of Control of Adolescents: Results from the NLS First-year Follow-up. An Unpublished Ph.D. Dissertation. University of North Carolina at Chapel Hill.

Heyns, B. 1974. "Social Selection and Stratification within Schools". American Journal of Sociology. 79 (May): 1434-1451.

Johnson, B. and P. R. Kilmann. 1975. "The Relationship between recalled parental attitudes and internal-external control. Journal of Clinical Psychology. 31 (Jan): 40-42.

REFERENCES (Cont'd)

Kohn, M. L. 1969. Class and Conformity: A Study in Values. Homewood, Illinois: Dorsey Press.

Lefcourt, Herbert M. 1966. "Internal vs. External Control of Reinforcement. Psychological Bulletin. 65 (4): 206-20.

Lefcourt, H. M. and G. W. Ladwig. a: 1965. "The American Negro: A Problem in expectancies. Journal of Personality and Social Psychology. 1:377-380.

Lefcourt, H. M. and G. W. Ladwig. b: 1966. "Alienation in Negro and white reformatory inmates". Journal of Social Psychology. 68:153-157.

Loether, H. J. and D. G. McTavish. 1974. Descriptive Statistics for Sociologists: An Introduction. Boston: Allyn and Bacon.

Phares, E. J. 1957. "Expectancy Changes in Skill and Chance Situations". Journal of Abnormal and Social Psychology. 54: 339-342.

Prociuk, T. J. and R. J. Lussier. 1975. "Internal-external Locus of Control: An Analysis and Bibliography of Two years of Research (1973-1974). Psychological Reports. December. 37 (3, Pt. 2): 1323-1337.

Rosenbaum, J. E. 1978. "The Structure of Opportunity in School". Social Forces. (Sept.). 57:1.

Rosenberg, M. 1973. "Which Significant Others?" In Glen H. Elder (ed.), Linking Social Structure and Personality. Beverly Hills: Sage.

Rotter, J. B. a: 1954. Social Learning and Clinical Psychology. New Jersey: Prentice-Hall.

Rotter, J. B. b: 1966. "Generalized Expectancies for Internal vs. External Control of Reinforcement. Psychological Monograph. 80 (1 Whole No. 609).